

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



NOVELTY SEARCHED BY EXAMINER
SUBSTANTIAL FORMALITY CHECKED BY EXAMINER
PRIORITY DOCUMENTS CHECKED BY EXAMINER
PCT APPLICATION CHECKED BY EXAMINER
PCT APPLICATION CHECKED BY EXAMINER

(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/006701 A1

(51) International Patent Classification⁷: H04L 27/26

(21) International Application Number:
PCT/US2004/021029

(22) International Filing Date: 30 June 2004 (30.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/483,719 30 June 2003 (30.06.2003) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

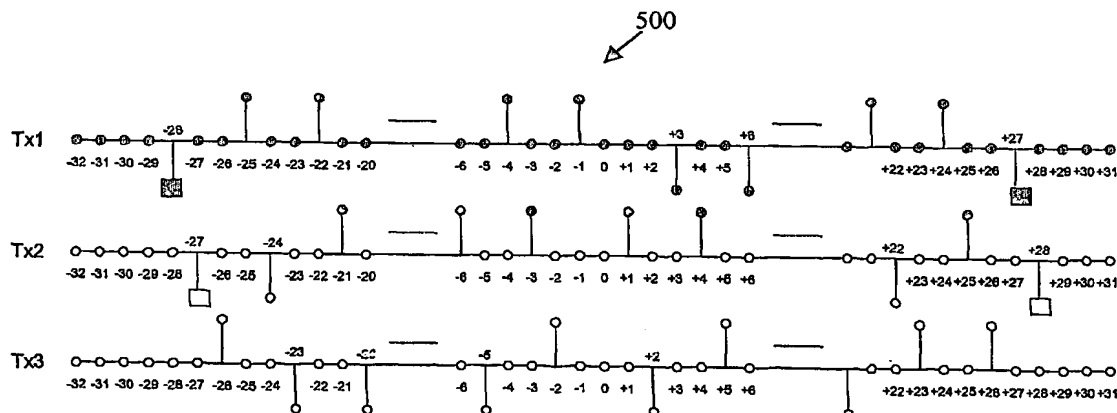
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR COMMUNICATING SYMBOLS IN A MULTIPLE INPUT MULTIPLE OUTPUT COMMUNICATION SYSTEM USING INTERLEAVED SUBCARRIERS ACROSS A PLURALITY OF ANTENNAS



(57) Abstract: A method and apparatus are provided for transmitting one or more symbols in a multiple antenna wireless communication system. Subcarriers from one or more symbols are interleaved across a plurality of antennas. The symbols may be, for example, long or short training symbols based on a single-antenna long or short training symbol, respectively, and wherein each subsequent subcarrier from the single-antenna training symbol is positioned in a training symbol for a logically adjacent antenna. One or more additional subcarriers may be inserted in at least one of the plurality of symbols to allow nulled subcarriers to be estimated using an interpolation-based channel estimation technique. The remaining portions of a header, as well as the data sequences of a packet, may also be diagonally loaded.

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